

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2018-319-E

IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

DIRECT TESTIMONY AND EXHIBITS OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

February 26, 2019

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1 ***Introduction and Purpose***

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.**

3 A. My name is Gregory W. Tillman. My business address is 2001 SE 10th St., Bentonville, AR
4 72716-5530. I am employed by Walmart Inc. as Senior Manager, Energy Regulatory
5 Analysis.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

7 A. I am testifying on behalf of Walmart Inc. ("Walmart").

8 **Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.**

9 A. I earned a Bachelor of Science in Electrical Engineering from the University of Tulsa in
10 1987. Prior to joining Walmart in 2015, I had over 22 years of experience in the regulated
11 and deregulated energy industry including roles in regulatory, pricing, billing, and
12 metering information. In 1990, after serving on active duty as a Signal Officer in the
13 United States Army, I joined Public Service Company of Oklahoma ("PSO"). From 1990
14 through 1997, I was employed in various positions at PSO, including in the Information
15 Services, Business Planning, Rates and Regulatory, and Ventures departments. During my
16 tenure with the Rates and Regulatory Department, I served as the Supervisor of Power
17 Billing and Data Collection. In this position, I managed the billing for large industrial and
18 commercial customers and led the implementation of PSO's real-time pricing program. I
19 also managed the implementation of real-time pricing for the three remaining utilities in
20 the Central and South West Corporation – Southwestern Electric Power Company, Central
21 Power and Light, and West Texas Utilities. In 1997, I joined the Retail Energy Department
22 of the Williams Energy Company as the Manager of Systems for the retail gas and electric

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1 data and billing. I also managed the customer billing function at Williams Thermogas as
2 well as the billing and accounting systems support functions at Williams Communications.
3 From 2000 to 2002, I served as the Vice President of Energy Solutions for Automated
4 Energy. In 2008, following several assignments as a consultant and project manager in
5 various industries, I joined Oklahoma Gas & Electric Company ("OG&E") as a Senior Pricing
6 Analyst. I was promoted to Manager of Pricing in January 2010 and became the Product
7 Development Pricing Leader in 2013. While at OG&E, I was instrumental in developing
8 and managing OG&E's pricing strategy and products, including the design and
9 implementation of OG&E's SmartHours™ rate. I have been in my current position with
10 Walmart since November 2015. My Witness Qualification Statement is included herein
11 as Exhibit GWT-1.

12 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE SOUTH CAROLINA PUBLIC SERVICE**
13 **COMMISSION ("THE COMMISSION")?**

14 **A.** Yes. I testified in Docket No. 2016-227-E.

15 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER STATE REGULATORY**
16 **COMMISSIONS?**

17 **A.** Yes. I have testified in 37 other proceedings before the Arizona Corporation Commission,
18 the Arkansas Public Service Commission, the Connecticut Public Utilities Regulatory
19 Authority, the Indiana Utility Regulatory Commission, the Iowa Utilities Board, the
20 Kentucky Public Service Commission, the Michigan Public Service Commission, the Public
21 Utility Commission of Nevada, the New Jersey Board of Public Utilities, the Oklahoma
22 Corporation Commission, the Pennsylvania Public Utility Commission, the Rhode Island

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1 Public Utilities Commission, the Public Utilities Commission of Texas, the Commonwealth
2 of Virginia State Corporation Commission, the Public Service Commission of West Virginia,
3 and the Wisconsin Public Service Commission. My testimony addressed the topics of
4 revenue requirement, rate design, revenue allocation, pricing, customer impacts, tariffs,
5 and terms and conditions of service. See Exhibit GWT-1.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

7 A. The purpose of my testimony is to respond to the Application of Duke Energy Carolinas,
8 LLC ("DEC" or "Company") to modify its electric rates. Specifically, I will address issues
9 with the Company's proposed revenue requirements, revenue allocation, and rate design
10 proposals.

11 **Q. HAVE YOU PREPARED EXHIBITS?**

12 A. Yes. I am sponsoring the exhibits listed in the Table of Contents.

13 **Q. PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS IN SOUTH CAROLINA.**

14 A. As shown on Walmart's website, there are 124 retail units and 4 distribution centers in
15 South Carolina. Walmart employs 34,079 associates in the state. In the fiscal year ending
16 January 2018, Walmart purchased \$917.9 million worth of goods and services from 564
17 South Carolina-based suppliers, supporting 26,983 supplier jobs.¹

¹ <https://corporate.walmart.com/our-story/our-locations#/united-states/south-carolina>

1 **Q. PLEASE DESCRIBE WALMART'S OPERATIONS WITHIN THE COMPANY'S SERVICE**
2 **TERRITORY.**

3 A. Walmart has approximately 30 retail stores, a distribution center, and a return center in
4 DEC's service territory. These facilities are primarily served under the Company's Optional
5 Power Service, Time-of-Use Rate ("OPT").

6 ***Summary of Recommendations***

7 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS TO THE COMMISSION.**

8 A. My recommendations to The Commission are as follows:

9 1) The Commission should thoroughly and carefully consider the impact on
10 customers in examining the requested revenue requirement and return on
11 equity ("ROE"), in addition to all other facets of this case, to ensure that any
12 increase in the Company's rates reflects the minimum amount necessary to
13 compensate the Company for adequate and reliable service, while also
14 providing DEC an opportunity to earn a reasonable return.

15 2) The Commission should reject DEC's proposed inclusion of approximately \$353
16 million of construction work in progress ("CWIP") in rate base. However, if the
17 Commission determines that CWIP should continue to be included in rate
18 base, it should recognize the resulting shift in risk from the Company's
19 shareowners to its customers in the form of a reduced authorized ROE.

20 3) If the Commission approves the proposed Grid Improvement Plan ("GIP")
21 Rider, either as proposed or in a modified form, it should reflect the shift of

1 risk from the Company's shareholders to its customers in the form of a
2 reduced authorized ROE.

3 4) The Commission should closely examine the Company's proposed revenue
4 requirement increase and the associated proposed increase in ROE, especially
5 when viewed in light of: (1) the customer impact of the resulting revenue
6 requirement increase; (2) the use of risk-reducing rate-making structures such
7 as the inclusion of CWIP in rate base and the Company's proposed forward-
8 looking GIP Rider; and (3) recent rate case ROEs approved by commissions
9 nationwide.

10 5) Walmart does not take a position on the company's proposed cost of service
11 model at this time. However, to the extent that alternative cost of service
12 models or modifications to the Company's model are proposed by other
13 parties, Walmart reserves the right to address any such proposals.

14 6) At the Company's proposed revenue requirement, Walmart does not oppose
15 the revenue allocation recommended by the Company.

16 7) If the Commission determines that the appropriate revenue requirement is
17 lower than the level proposed by the Company, the Commission should
18 determine the extent to which rates can be moved to their respective cost of
19 service while ensuring that no class receives an increase that is seriously
20 adverse.

1 8) Walmart does not oppose the proposed OPT rate design methodology. To the
2 extent that alternative proposals are presented by other parties, Walmart
3 reserves the right to address any such proposals.

4 9) The Commission should reject the GIP Rider as proposed. If the Commission
5 approves some form of GIP Rider recovery, it should incorporate all related
6 changes in cost and revenue in the determination of the revenue requirement
7 for the rider. Specifically, the revenue requirement calculation for the GIP
8 Rider should incorporate expected direct benefits associated with each
9 project.

10 10) If the Commission approves the proposed GIP Rider, either as proposed or in
11 a modified form, it should order a change to the rate design to collect non-
12 customer costs through a demand-based charge for customers that are billed
13 on a demand-metered rate.

14 The fact that an issue is not addressed herein or in related filings should not be construed
15 as Walmart's endorsement of any filed position.

16 ***Revenue Requirement and ROE***

17 **Q. WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S PROPOSED REVENUE**
18 **REQUIREMENT INCREASE IN THIS DOCKET?**

19 **A.** My understanding is that the Company proposes a revenue requirement increase of
20 approximately \$168 million per year, representing an increase in annual revenues of
21 approximately 10 percent. See Direct Testimony of Kodwo Ghartey-Tagoe, p. 10, lines 1-

2. The Company is also seeking approval of additional rate recovery related to the GIP of \$16 million for the year beginning June 1, 2020, and \$20 million for the year beginning June 1, 2021. *Id.*, line 9. Additionally, the Company's request includes a \$63 million excess deferred income tax ("EDIT") rider credit of federal and state tax benefits resulting from the Federal Tax Cuts and Jobs Act ("TCJA"), and a reduction in the North Carolina state taxes allocable to South Carolina. See Application, p. 4, ¶ 7.

Q. ARE THE RATE REDUCTION IMPACTS OF THE FEDERAL AND STATE TAX BENEFITS RELEVANT TO THE COMMISSION'S CONSIDERATION OF THE MERITS OF THE OTHER COMPONENTS OF THE COMPANY'S PROPOSED REVENUE REQUIREMENT INCREASE?

A. No. Tax liabilities are essentially pass-through items, and the reduced liabilities, including those associated with the TCJA, should accrue to the benefit of customers regardless of the impact resulting from other issues in this case. The Commission should not use this reduction to modify its consideration of the merits of other components of the Company's proposed revenue requirement increase. Changes in the non-tax based portion of the Company's costs recovered through base rates should not be deemed any more or less reasonable due to contemporaneous changes in the federal income tax rates applicable to the Company's earnings.

Q. INCLUDING THE PROPOSED EDIT RIDER, GIP, AND RATE INCREASE, WHAT IS THE TOTAL PROPOSED CUSTOMER IMPACT OF THE DEC REQUESTS?

A. As shown in Table 1, over the next two years, the Company is requesting a total increase of \$251.0 million, or 14.9 percent above current rates.

Table 1: Total Cumulative Requested Increase

	June 1, 2019 Increase (000's)	June 1, 2020 Increase (000's)	June 1, 2021 Increase (000's)
Present Rate Revenue	\$ 1,687,044	\$ 1,917,851	\$ 1,934,042
Base Rate Increase	\$ 168,195	\$ -	\$ -
EDIT Rider	\$ 62,612	\$ -	\$ -
GIP Phase 1	\$ -	\$ 16,191	\$ -
GIP Phase 2	\$ -	\$ -	\$ 20,172
Proposed Rate Revenue	\$ 1,917,851	\$ 1,934,042	\$ 1,954,214
Increase	\$ 230,807	\$ 16,191	\$ 3,981
Percent Increase	13.7%	0.8%	0.2%
Cumulative	\$ 230,807	\$ 246,998	\$ 250,979
Percent Increase	13.7%	14.6%	14.9%

Sources: Pirro Direct Exhibit No. 4; Smith Exhibit 3.

Q. SHOULD THE COMMISSION GENERALLY CONSIDER THE IMPACT OF A \$251 MILLION INCREASE ON CUSTOMERS IN SETTING THE REVENUE REQUIREMENT AND ROE FOR THE COMPANY?

A. Yes. From a retailer's perspective, electricity is a significant operating expense and, when electric rates increase, it puts pressure on consumer prices and on the other expenses required by a business to operate. The Commission should thoroughly and carefully consider the impact on customers in examining the requested revenue requirement and ROE, in addition to all other facets of this case, to ensure that any increase in the Company's rates reflects the minimum amount necessary to compensate the Company for adequate and reliable service, while also providing DEC an opportunity to earn a reasonable return.

1 **Q. WHAT IS THE COMPANY ESTIMATED ROE IN THIS DOCKET?**

2 A. Company witness Hevert estimated a point value for ROE of 10.75 percent based on a
3 range of 10.25 percent to 11.00 percent. See Direct Testimony of Robert B. Hevert, p. 2,
4 lines 17-20.

5 **Q. IS THE COMPANY PROPOSING TO USE THE ESTIMATED VALUE OF 10.75 TO DETERMINE**
6 **ITS PROPOSED RATES?**

7 A. No. As a rate mitigation measure, the Company is proposing to set rates based on an ROE
8 of 10.50 percent. See Direct Testimony of John L. Sullivan, III, p. 6, line 22 through p. 7,
9 line 1.

10 **Q. ARE YOU CONCERNED THAT THE REQUESTED ROE OF 10.5 PERCENT IS EXCESSIVE?**

11 A. Yes. I am concerned that the Company's proposed ROE is excessive, especially when
12 viewed in light of: (1) the customer impact of the resulting revenue requirement increase
13 as discussed above; (2) the use of risk-reducing rate-making structures such as the
14 inclusion of CWIP in rate base, and the Company's proposed forward-looking GIP Rider;
15 and (3) recent rate case ROEs approved by commissions nationwide.

16 **Q. IS THE COMPANY'S PROPOSED ROE HIGHER THAN THE CURRENTLY AUTHORIZED ROE?**

17 A. Yes. The Company's most recent rate case in 2013 resulted in an authorized ROE of 10.20
18 percent. See *IN RE: Application of Duke Energy Carolinas, LLC for Authority to Adjust and*
19 *Increase Its Electric Rates and Charges*, Docket No. 2013-59-E, Order No. 2013-661 (Sept.
20 18, 2013) at 30.

1 **Q. IS THE COMPANY'S PROPOSED ROE HIGHER THAN THE AUTHORIZED ROE FOR DUKE**
2 **ENERGY PROGRESS, LLC ("DEP") IN SOUTH CAROLINA AND FOR DEC AND DEP IN NORTH**
3 **CAROLINA?**

4 A. Yes. In DEP's most recent South Carolina rate case, the Commission authorized an ROE of
5 10.1 percent. *See IN RE: Application of Duke Energy Progress, LLC for Authority to Adjust*
6 *and Increase Its Electric Rates and Charges*, Docket No. 2016-227-E, Order No. 2016-227-
7 E (Dec. 21, 2016) at 34. In 2018, the North Carolina Utilities Commission ("NCUC")
8 authorized an ROE of 9.9 percent to both DEP and DEC. *See In the Matter of Application*
9 *by Duke Energy Progress, LLC, For Adjustment of Rates and Charges Applicable to Electric*
10 *Utility Service in North Carolina*, NCUC Docket No. E-2, Sub 1142, Order Accepting
11 Stipulation, Deciding Contested Issues and Granting Partial Rate Increase (Feb. 23, 2018)
12 at 56; *In the Matter of Application of Duke Energy Carolinas, LLC, for Adjustment of Rates*
13 *and Charges Applicable to Electric Utility Service in North Carolina*, NCUC Docket No. E-7,
14 Sub 1146, Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue
15 Reduction (June 22, 2018) at 32.

16 **Q. WHAT IS THE REVENUE REQUIREMENT IMPACT OF THE COMPANY'S PROPOSED 30**
17 **BASIS POINT INCREASE TO ITS AUTHORIZED ROE?**

18 A. The impact of the proposed increase in authorized ROE is an increase to revenue
19 requirement of approximately \$11.9 million or 5.1 percent of the \$230.8 million base rate
20 increase requested by DEC. *See Exhibit GWT-2.*

Construction Work in Progress

Q. WHAT IS YOUR UNDERSTANDING OF THE COMMISSION'S TRADITIONAL TREATMENT OF CWIP IN RATE BASE?

A. It is my understanding that the Commission has long allowed utilities to include CWIP in rate base.

Q. ARE YOU CONCERNED WITH THE INCLUSION OF CWIP IN RATE BASE?

A. Yes. Including CWIP in rate base results in charges to customers for assets that are not yet "used and useful" in providing electric service. Under the Company's proposal, customers will pay for assets prior to receiving any benefits from those assets. This violates the matching principle, namely that customers should bear costs at the time they are receiving the corresponding benefits. Changes in the number and mix of customers that occur during the construction process, *i.e.*, before the asset becomes used and useful can often mean that some customers pay for an asset but do not benefit from it (or vice versa). For example, customers may pay for certain assets during the construction phase, but leave the system before those assets become operational, and thus receive no benefit for their portion of the cost of the assets for which they paid.

Q. ARE THERE OTHER CONCERNS WITH INCLUDING CWIP IN RATE BASE THAT THE COMMISSION SHOULD CONSIDER?

A. Yes. Including CWIP in rate base shifts risk onto customers that traditionally is assumed by the utility's investors. Investors are already compensated for their risk through the ROE as well as through the value of financing the construction once the asset is placed in service. Utility's customers who pay for construction costs receive no current benefit for

1 the use of their money. Moreover, under this scenario, the parties bearing the risk -- the
2 utility's customers -- have no recourse for recovering or mitigating costs in the event the
3 Company encounters problems during the construction of the plant resulting in stoppage
4 of the construction, non-completion of the project, and/or a substantial delay in the
5 project's completion. When investors bear the risk of construction problems, investors
6 are not only incentivized, but empowered, to rectify the delays and/or stoppages.

7 Indeed, the pitfalls of allowing a utility to earn a return for an asset that is not yet
8 used and useful were made apparent to customers when South Carolina Electric and Gas
9 abandoned their VC Summer nuclear power plant units.

10 **Q. HOW MUCH CWIP DOES THE COMPANY PROPOSE TO INCLUDE IN ITS RATE BASE?**

11 A. DEC proposes to include approximately \$353 million of CWIP in its test year rate base.
12 See Direct Testimony of Kim H. Smith at Exhibit 1, p. 4.

13 **Q. AT THE COMPANY'S PROPOSED CWIP AMOUNT, HOW MUCH OF DEC'S RATE BASE**
14 **WOULD BE ASSOCIATED WITH CWIP?**

15 A. As proposed, CWIP constitutes approximately 6.3 percent of the Company's rate base.
16 See Exhibit GWT-3.

17 **Q. WHAT IS THE REVENUE REQUIREMENT IMPACT OF INCLUDING CWIP IN RATE BASE?**

18 A. The inclusion of CWIP in rate base results in a revenue requirement impact to customers
19 of approximately \$36.5 million annually. *Id.*

1 **Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION REGARDING THE INCLUSION**
2 **OF CWIP IN RATE BASE?**

3 A. The Commission should reject DEC's proposed inclusion of approximately \$353 million of
4 CWIP in rate base. However, if the Commission determines that CWIP should continue to
5 be included in rate base, it should recognize the resulting shift in risk from the Company's
6 shareowners to its customers in the form of a reduced authorized ROE.

GIP Rider

7 **Q. WHAT IS YOUR UNDERSTANDING OF THE PURPOSE OF THE COMPANY'S GIP?**

8 A. I understand that the GIP is the Company's three-year grid investment plan to address
9 emerging challenges created by trends affecting the electric grid. See Direct Testimony
10 of Jay W. Oliver, p. 3, lines 19-21.

11 **Q. WHAT IS THE ANNUAL CAPITAL INVESTMENT AND REVENUE REQUIREMENT PROJECTED**
12 **TO BE INCLUDED IN THE DEC'S PROPOSED GIP RIDER?**

13 A. The proposed investment for the DEC system is \$336 million in 2019 and \$534 million in
14 2020. Of this amount, the portion allocated to South Carolina is \$68 million in 2019 and
15 \$111 million in 2020. *Id.*, p. 12, line 23 through p. 13, line 4. The corresponding revenue
16 requirement for the GIP Rider is \$16.2 million beginning in June 2020, and \$20.2 beginning
17 in June 2021. See Direct Testimony of Kim H. Smith at Exhibit 3.

18 **Q. WHAT IS YOUR UNDERSTANDING OF THE COSTS INCLUDED IN THE GIP REVENUE**
19 **REQUIREMENT CALCULATION?**

20 A. Based on my review, I understand the revenue requirements to be based on the return
21 on the incremental net rate base, the incremental depreciation expense, the incremental

property tax expense, and the amortization of specified deferred costs from previous periods. See Direct Testimony of Kim H. Smith, p. 37, line 16 through p. 39, line 2.

Q. DOES THE COMPANY'S PROPOSED GIP RIDER REDUCE THE COMPANY'S EXPOSURE TO RISK FROM REGULATORY LAG FOR THE INCREMENTAL CAPITAL EXPENDITURES?

A. Yes. Approval of the proposed GIP Rider will allow the Company to project and put into rates post-test year investments without waiting for rates to be authorized per the next filed rate case. This treatment provides the benefits of both a future test year as well as rider recovery of the GIP costs. Under normal circumstances, DEC's shareholders would be exposed to the risk of regulatory lag for the incremental capital expenditures. Approval of the GIP Rider would shift that risk to customers through the pre-approval of the expected revenue requirement. If the Commission approves the proposed GIP Rider, either as proposed or in a modified form, it should reflect the shift of risk from the Company's shareholders to its customers in the form of a reduced authorized ROE.

Q. IN ADDITION TO THE SHIFT OF RISK FROM SHAREOWNERS TO CUSTOMERS, ARE THERE OTHER ISSUES WITH THE COMPANY'S PROPOSED GIP RIDER?

A. Yes. I will address additional issues in the rate design portion of my testimony.

Recently Authorized ROEs

Q. IS THE COMPANY'S PROPOSED ROE HIGHER THAN THE AVERAGE OF RECENT ROE APPROVALS BY OTHER UTILITY REGULATORY COMMISSIONS NATIONWIDE?

A. Yes. The requested ROE exceeds the average ROE approved by other utility regulatory commissions in 2016, 2017, 2018, and thus far in 2019.

1 **Q. WHAT IS YOUR UNDERSTANDING OF THE ROE AWARDED IN RECENT RATE CASES**
2 **NATIONALLY?**

3 A. According to data from SNL Financial, a financial news and reporting company, the
4 average of the 111 reported electric utility rate case ROEs authorized by state regulatory
5 commissions to investor-owned electric utilities in 2016, 2017, 2018, and so far in 2019,
6 is 9.61 percent. The range of reported authorized ROEs for the period is 8.40 percent to
7 11.95 percent, and the median authorized ROE is 9.60 percent. See Exhibit GWT-4.

8 **Q. SEVERAL OF THE REPORTED AUTHORIZED ROES ARE FOR DISTRIBUTION-ONLY UTILITIES**
9 **OR FOR ONLY A UTILITY'S DISTRIBUTION SERVICE RATES. WHAT IS THE AVERAGE**
10 **AUTHORIZED ROE IN THE REPORTED GROUP FOR VERTICALLY INTEGRATED UTILITIES**
11 **LIKE DEC?**

12 A. In the group reported by SNL Financial, the average ROE for vertically integrated utilities
13 authorized from 2016 to present is 9.76 percent. However, over this same time period
14 the annual average authorized ROEs have been trending downward.

15 **Q. PLEASE EXPLAIN.**

16 A. The average authorized ROE for vertically integrated utilities in 2016 was 9.77 percent, in
17 2017 it was 9.80 percent, and since the beginning of 2018 it has averaged 9.69 percent.
18 As such, the Company's proposed 10.75 percent ROE in this case is a move counter to
19 broader electric industry trends. *Id.* As shown in Figure 1, the Company's estimated ROE
20 of 10.75 percent and proposed ROE of 10.5 percent would be among the highest ROEs
21 authorized for vertically integrated electric utilities in the U.S. since the beginning of 2016.

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Furthermore, it would represent an increase from the Company's currently authorized ROE despite the national trend towards decreased ROEs.

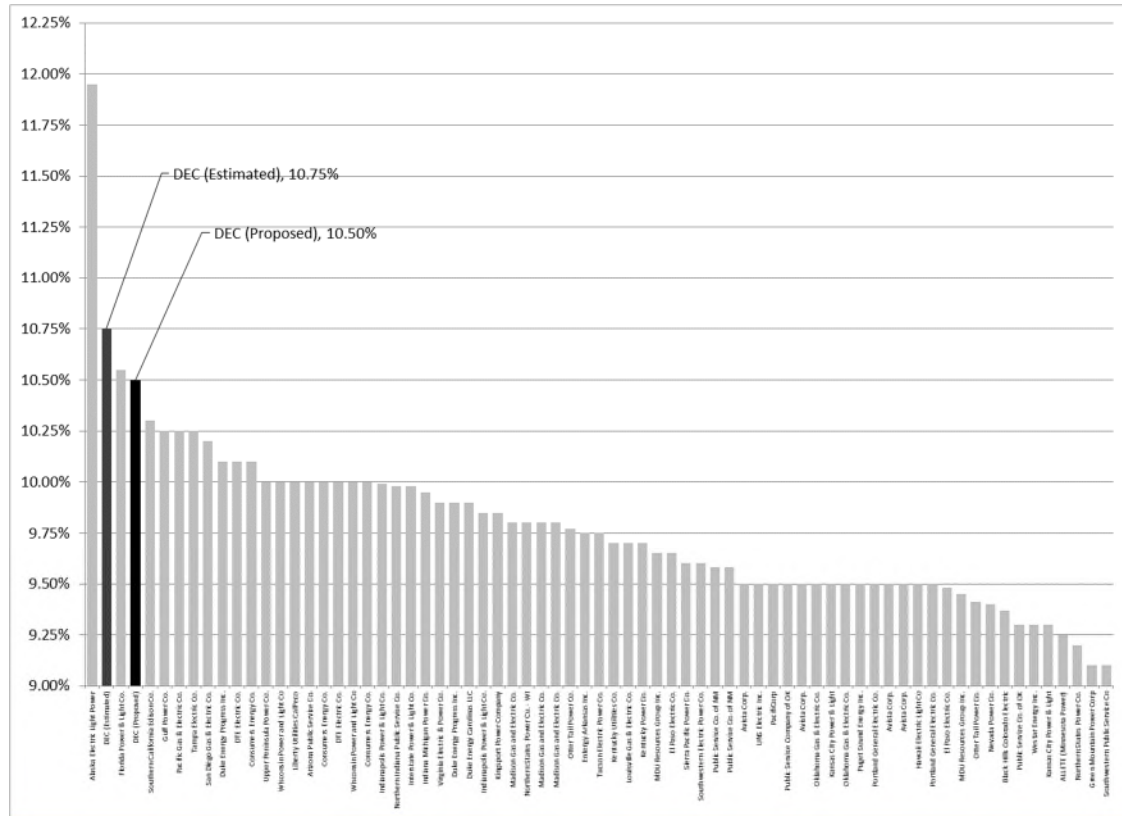


Figure 1: DEC Estimated and Proposed ROE Versus Authorized ROEs for Vertically Integrated Utilities, 2016 through present. Source Exhibit GWT-4.

Q. WHAT IS THE BASE REVENUE REQUIREMENT IMPACT IF THE COMMISSION WERE TO AWARD AN ROE OF 9.69 PERCENT, THE AVERAGE ROE AWARDED FOR VERTICALLY INTEGRATED UTILITIES FOR THE PERIOD 2018 THROUGH THE PRESENT?

A. Authorizing DEC an ROE of 9.69 percent instead of the proposed 10.50 percent would result in a revenue requirement reduction inclusive of taxes of about \$32.2 million. This totals about 14.0 percent of the Company's requested \$230.8 million base rate increase. See Exhibit GWT-5.

1 **Q. IS WALMART RECOMMENDING THAT THE COMMISSION BE BOUND BY ROES**
2 **AUTHORIZED BY OTHER STATE REGULATORY AGENCIES?**

3 A. No. Decisions of other state regulatory commissions are not binding on the Commission.
4 Additionally, each commission considers the specific circumstances in each case in
5 determining the proper ROE. Walmart is providing this information to illustrate a
6 nationwide electric utility customer's perspective on industry trends in authorized ROE.
7 In addition to using recent authorized ROEs as a general gauge of reasonableness for the
8 various cost of equity analyses presented in this case, The Commission should consider
9 how the ROE authorized in this case impacts customers relative to other jurisdictions.

10 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION REGARDING THE**
11 **COMPANY'S REQUESTED REVENUE REQUIREMENT INCREASE AND ROE?**

12 A. The Commission should closely examine the Company's proposed revenue requirement
13 increase and the associated proposed increase in ROE, especially when viewed in light of:
14 (1) the customer impact of the resulting revenue requirement increase; (2) the use of risk-
15 reducing rate-making structures such as the inclusion of CWIP in rate base and the
16 Company's proposed forward-looking GIP Rider; and (3) recent rate case ROEs approved
17 by commissions nationwide.

Cost of Service and Rate Design

Q. WHAT IS WALMART'S POSITION ON SETTING RATES BASED ON THE UTILITY'S COST OF SERVICE?

A. Walmart advocates that rates be set by regulatory agencies based on the utility's cost of service for each rate class. A regulatory policy that supports the fair-cost-apportionment objective of rate-making ensures that rates reflect cost causation, which sends proper price signals to customers and minimizes price distortions.

Q. HOW IS COST CAUSATION DETERMINED IN THE RATE-MAKING PROCESS?

A. In cost of service regulation, the Commission must determine the revenue requirement that the Company is authorized to recover based on prudent costs including a reasonable return on the investment required to provide service. The utility's cost of service study ("COSS") is an analytic tool commonly used to determine the total cost and equitable assignment of cost responsibility to customers. This is accomplished by identifying, functionalizing, classifying, and allocating the allowable costs to customer classes in the manner that those customer classes cause those costs to be incurred.

Q. DOES WALMART TAKE A POSITION ON THE COMPANY'S PROPOSED COST OF SERVICE MODEL AT THIS TIME?

A. No. However, to the extent that alternative cost of service models or modifications to the Company's model are proposed by other parties, Walmart reserves the right to address any such proposals.

1 **Q. WHAT IS REVENUE ALLOCATION?**

2 A. Revenue allocation, sometimes referred to as rate spread, is the assignment of the
3 revenue responsibility to each customer class. A revenue allocation that assigns revenue
4 to each class at its cost of service is free of inter-class subsidies.

5 **Q. ARE THERE INSTANCES IN WHICH THE COMMISSION WOULD ASSIGN DIFFERENT**
6 **REVENUE TO INDIVIDUAL CLASSES THAN IS CALLED FOR WITHIN THE COSS, RESULTING**
7 **IN INTER-CLASS SUBSIDIES?**

8 A. Yes. At times, the regulator may find it necessary to approve a level of revenue
9 requirement to a particular class which differs from the cost responsibility amount
10 determined in the COSS. This is often driven by the need to ensure that customers are
11 not seriously adversely impacted by major changes to the level of rates. Other reasons
12 can include perceived differences in COSS results and reality, relative risks assigned to
13 classes, social goals associated with the role of the prices in a particular jurisdiction, and
14 a response to the state of the economy within or external to the regulatory jurisdiction.
15 The Commission may exercise its discretion based on one or more of these concerns to
16 adjust revenue allocation to support policy or advance the public interest. However,
17 these adjustments often result in rates that are not cost-based and, as a result, not just,
18 reasonable, and equitable.

19 **Q. WHAT IS THE ULTIMATE GOAL WHEN ALLOCATING REVENUE?**

20 A. To the extent possible, inter-class subsidies should be eliminated through a revenue
21 allocation that reflects the cost of service. If this is not possible in the immediate case,
22 the Commission should establish a clear path to the elimination or reduction of undesired

1 subsidies, continually moving each class closer to their respective cost of service until
2 undesired subsidies are eliminated and price signals, thus system efficiency, are
3 improved.

4 **Q. HOW DOES THE COMPANY REPRESENT THE ACCURACY OF THE PROPOSED CLASS**
5 **REVENUES IN THEIR REFLECTION OF THE UNDERLYING COSTS OF EACH CLASS?**

6 A. The Company represents this relationship in their cost of service results through the use
7 of class-specific rates of return. This can be converted into a class relative rate of return
8 ("RROR"), which describes the relationship between each class-specific rate of return and
9 the total system rate of return. A RROR greater than 100 percent means that the rate
10 class is paying rates in excess of the costs incurred to serve that class, and a RROR less
11 than 100 percent means that the rate class is paying rates less than the costs incurred to
12 serve that class. As such, when rates are set such that a class does not have a RROR equal
13 to 100 percent there are inter-class subsidies, as those rate classes with a RROR greater
14 than 100 percent shoulder some of the revenue responsibility burden for the classes with
15 a RROR less than 100 percent.

16 **Q. WHAT ARE THE PRESENT AND PROPOSED RATES OF RETURN AND RROR FOR THE TOTAL**
17 **COMPANY AND MAJOR RATE CLASSES?**

18 A. The Company's present rate of return is 4.64 percent and DEC has proposed a rate of
19 return of 7.74 percent. The major rate classes' present and proposed rates of return and
20 the calculated RROR of each class are shown in Table 2.

Walmart Inc.
Direct Testimony of Gregory W. Tillman
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Table 2: Present and Proposed Rates of Return and Relative Rates of Return

	Present		Proposed	
Rate Class	Rate of Return	RROR	Rate of Return	RROR
Rate RS	3.82%	82%	7.12%	92%
Rate GS	6.15%	133%	8.87%	115%
Rate LT	3.53%	76%	6.90%	89%
Rate I	10.00%	216%	11.76%	152%
Rate OPT	4.67%	101%	7.76%	100%
Total	4.64%	100%	7.74%	100%

Source: Pirro Direct Exhibit No. 4, p. 1

Q. HAS THE COMPANY'S PROPOSED REVENUE ALLOCATION MOVED THE MAJOR CLASSES CLOSER TO THEIR RESPECTIVE COST OF SERVICE?

A. Yes. As can be seen in Table 2, all major classes have been moved closer to their respective costs of service at the proposed revenue levels as shown by the movement toward 100 percent in the relative rates of return. Under the Company's proposed revenue allocation, Rate OPT has been successfully moved to its cost of service.

Q. AT THE COMPANY'S PROPOSED REVENUE REQUIREMENT, DOES WALMART OPPOSE THE COMPANY'S RECOMMENDED REVENUE ALLOCATION?

A. At the Company's proposed revenue requirement, Walmart does not oppose the revenue allocation recommended by the Company.

Q. IF THE COMMISSION ORDERS A LOWER LEVEL OF REVENUE REQUIREMENT THAN THAT PROPOSED BY THE COMPANY, HOW SHOULD THE REVENUE ALLOCATION TO EACH CLASS BE MODIFIED?

A. If the Commission determines that the appropriate revenue requirement is lower than the level proposed by the Company, the Commission should determine the extent to

1 which rates can be moved to their respective cost of service while ensuring that no class
2 receives an increase that is seriously adverse.

3 ***OPT Rate Design***

4 **Q. WHAT IS YOUR UNDERSTANDING OF THE COMPANY'S RATE DESIGN PROCESS FOR RATE**
5 **OPT?**

6 A. It is my understanding the proposed rate design reflects the cost basis for customer-
7 related costs in the basic facilities charge. See Direct Testimony of Michael J. Pirro, p. 15,
8 lines 6-12. For Rate OPT, the Company adjusted the energy and demand prices to achieve
9 the revenue requirement while maintaining the overall structure of the rate. *Id.*, p. 15,
10 line 20 through p. 16, line 2.

11 **Q. DOES WALMART OPPOSE THE COMPANY'S PROPOSED RATE DESIGN METHODOLOGY**
12 **FOR RATE OPT?**

13 A. Walmart does not oppose the proposed OPT rate design methodology. To the extent that
14 alternative proposals are presented by other parties, Walmart reserves the right to
15 address any such proposals.

16 ***GIP Rider Rate Design***

17 **Q. IS WALMART CONCERNED WITH THE RATE DESIGN OF THE PROPOSED GIP RIDER?**

18 A. Yes. Walmart is concerned that the calculation of the GIP Rider reflects single-issue
19 ratemaking. As proposed, the revenue requirement does not fully account for and reflect
20 the comprehensive impact on revenues and expenses that result from the proposed

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1 capital expenditures. The installation of new capital equipment typically is accompanied
2 with a change in operations and maintenance ("O&M") expenses which are not accounted
3 for in the Company's proposed revenue calculations.

4 Using the Company's targeted undergrounding program as an example, certain
5 benefits are expected as the Company completes the Hampton Heights project. Namely,
6 there will be a reduction in restoration costs, vegetation management costs, and asset
7 management costs among other benefits listed by the Company. See Direct Testimony of
8 Jay W. Oliver at Exhibit 8, p. 2. While customers will be paying for the cost of completing
9 the project through the GIP Rider, the benefits in the form of reduced costs will not be
10 reflected in the customers' rates until after the next rate case is completed. The
11 Commission must ensure that the reduced costs resulting from the completion of the
12 undergrounding project are incorporated into the revenue requirement of the GIP Rider
13 to ensure that rates reflect the entirety of the impact of the project on customer costs.

14 **Q. UNDER THE NORMAL RATE-MAKING PROCESS, ARE THESE CHANGES IN EXPENSES**
15 **INCORPORATED INTO REVENUE REQUIREMENTS?**

16 A. Yes. In a full rate case the rate-making process includes a full analysis of the Company's
17 cost to provide service and the resulting revenue requirements reflect both the new
18 capital investments and the related impact on O&M expenses.

19 **Q. HOW DOES WALMART DEFINE SINGLE ISSUE RATE-MAKING?**

20 A. Walmart defines single-issue ratemaking as the consideration of a specific cost or revenue
21 item without considering all related costs and revenues. Walmart understands that a rate
22 case is not necessarily required to introduce a new rate such as the GIP Rider. However,

1 in approving such mechanisms outside of a full rate case, the regulator should ensure that
2 all related changes to costs and revenues are reflected in the rate design for the
3 incremental charges.

4 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION WITH RESPECT TO THE**
5 **PROPOSED GIP RIDER?**

6 A. The Commission should reject the GIP Rider as proposed. If the Commission approves
7 some form of GIP Rider recovery, it should incorporate all related changes in cost and
8 revenue in the determination of the revenue requirement for the rider. Specifically, the
9 revenue requirement calculation for the GIP Rider should incorporate expected direct
10 benefits associated with each project.

11 **Q. DOES WALMART HAVE OTHER CONCERNS WITH THE DESIGN OF THE GIP RIDER?**

12 A. Yes. Walmart is also concerned with the energy-based rate design structure for demand-
13 metered customers. The proposed GIP Rider includes a customer component and a
14 volumetric kWh charge. This structure leads to a shift in revenue responsibility from low
15 load factor to high load factor customers, creating intra-class subsidies.

16 **Q. HOW DOES THE USE OF VOLUMETRIC RATES FOR DEMAND-METERED CUSTOMERS**
17 **SHIFT REVENUE RESPONSIBILITY BETWEEN LOW AND HIGH LOAD FACTOR CUSTOMERS?**

18 A. Charging fixed GIP-related costs using a volumetric energy-based charge ties the amount
19 of fixed costs collected to a customer's load factor – that is, the amount of energy a
20 customer consumes, in kWh, given its maximum billing demand, in kW. Collecting the
21 demand-related fixed costs through a per kWh energy charge instead of a per kW demand
22 charge results in a shift in demand cost responsibility from lower load factor customers

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1 to higher load factor customers. In essence, two customers can have the same level of
2 demand and cause the utility to incur the same amount of these fixed costs, but because
3 the higher load factor customer uses more kWh than the other, that customer will pay
4 more through the proposed GIP Rider kWh charge, thus will subsidize, the lower load
5 factor customer that uses fewer kWh.

6 **Q. WHAT IS WALMART'S RECOMMENDATION TO THE COMMISSION REGARDING THE**
7 **STRUCTURE OF THE GIP RIDER?**

8 A. If the Commission approves the proposed GIP Rider, either as proposed or in a modified
9 form, it should order a change to the rate design to collect non-customer costs through a
10 demand-based charge for customers that are billed on a demand-metered rate.

11 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

12 A. Yes.

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2018-319-E

IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

EXHIBITS OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2018-319-E

IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

EXHIBIT GWT-1 OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

Gregory W. Tillman

Senior Manager, Energy Regulatory Analysis

Walmart Inc.

Business Address: 2001 SE 10th Street, Bentonville, AR, 72716-5530

Business Phone: (479) 204-7993

EXPERIENCE

November 2015 – Present

Walmart Inc., Bentonville, AR

Senior Manager, Energy Regulatory Analysis

November 2008 – November 2015

Oklahoma Gas & Electric, Oklahoma City, OK

Product Development Pricing Leader

Manager, Pricing

Senior Pricing Analyst

May 2006 – November 2008

LSG Solutions, Oklahoma City, OK

Project Manager, International Registration Plan/Interstate Fuel Tax Agreement Systems Development

August 2002 – May 2006

OnPeak Utility Solutions, Oklahoma City, OK

Owner/Consultant

May 2000 – August 2002

Automated Energy, Inc., Oklahoma City, OK

Vice President, Utility Solutions

November 1997 – May 2000

Williams Energy, Tulsa, OK

Sr. Manager Accounting Services

Process Manager, Customer Billing and Accounting

Retail Systems Manager, Billing and Electricity

May 1990 – November 1997

Public Service Company of Oklahoma, Tulsa, OK

Manager, Software Development and Support

Supervisor, Data Translation and Power Billing

Administrator, Disaster Recovery and Research and Development

Programmer/Analyst

June 1987 – May 1990

United States Army, Signal Command, Ft. Monmouth, NJ

Project Officer, Joint Tactical Information Distribution System

EDUCATION

1991-1994	The University of Tulsa	Graduate Coursework, M.B.A.
1987	The University of Tulsa	B.S., Electrical Engineering

TESTIMONY BEFORE REGULATORY COMMISSIONS

2019

Indiana Utility Regulatory Commission, Cause No. 45159, Petition of Northern Indiana Public Service Company Llc Pursuant to Ind. Code §§ 8-1-2-42.7, 8-1-2-61 and Ind. Code §§ 8-1-2.5-6 For (1) Authority To Modify Its Rates and Charges for Electric Utility Service Through a Phase In of Rates; (2) Approval of New Schedules of Rates and Charges, General Rules and Regulations, and Riders; (3) Approval of Revised Common and Electric Depreciation Rates Applicable to Its Electric Plant in Service; (4) Approval of Necessary and Appropriate Accounting Relief; and (5) Approval of a New Service Structure for Industrial Rates.

Oklahoma Corporation Commission, Case No. 201800097, In the Matter of the Application of Public Service Company of Oklahoma, an Oklahoma Corporation, for an Adjustment in its Rates and Charges and the Electric Service Rules, Regulations and Conditions of Service for Electric Service in the State of Oklahoma and to Approve a Performanced [*sic*] Base Rate Proposal.

Kentucky Public Service Commission, Case No. 2018-00294, Electronic Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates

Kentucky Public Service Commission, Case No. 2018-00295, Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates

Indiana Utility Regulatory Commission, Cause No. 45145, Petition of Duke Energy Indiana, Llc. For approval of a Solar Services Program Tariff, Rider No. 26, and approval of Alternative Regulatory Plan ("ARP") and Declination of Jurisdiction to the extent required under Ind. Code 8-1-2.5-1, et. Seq.

2018

Michigan Public Service Commission Case No. U-20162. In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates for its rate schedules and rules governing the generation and distribution of electricity and for other relief.

Public Service Commission of West Virginia Case No. 18-0646-E-42T. Appalachian Power Company and Wheeling Power Company, Rule 42T Application to increase electric rates and charges.

Michigan Public Service Commission Case No. U-20134. In the matter of the Application of CONSUMERS ENERGY COMPANY for authority to increase its rates for its rate schedules and rules governing the generation and distribution of electricity and for other relief.

New Jersey Board of Public Utilities Docket Nos. ER18010029 and GR18010030, in the Matter of the Petition of Public Service Electric and Gas Company for Approval of an Increase in Electric and Gas Rates and for Changes in the Tariffs for Electric and Gas Service, B.P.U.N.J. No. 16 Electric and B.P.U.N.J. No. 16 Gas, and for Changes in Depreciation Rates, Pursuant to N.J.S.A. 48:2-18, N.J.S.A. 48:2-21, and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief.

Public Utility Commission of Texas Docket No. 48371, in the Matter of Entergy Texas, Inc.'s Statement of Intent and Application for Authority to Change Rates.

Commonwealth of Virginia State Corporation Commission, Case No. PUR-2018-00048, Application of Appalachian Power Company for the Determination of the Fair Rate of Return on Common Equity Pursuant to Va. Code § 56-585.1:1.C.

Pennsylvania Public Utility Commission, Docket No. R-2018-3000164, Pennsylvania Public Utility Commission v. PECO Energy Company – Electric Division.

Pennsylvania Public Utility Commission, Docket No. R-2018-3000124, Pennsylvania Public Utility Commission v. Duquesne Light Company.

Public Utility Commission of Nevada, Docket No. 18-02010 Application of Nevada Power Company D/B/A Nv Energy Filed Under Advice Letter No. 485 To Revise Tariff No. 1-B To Establish The 2017 Tax Rate Reduction Rider; Docket No. 18-02011 Application of Application Of Sierra Pacific Power Company D/B/A Nv Energy Filed Under Advice Letter No. 605-E To Revise Electric Tariff No. 1 To Establish The 2017 Tax Rate Reduction Rider; and, Docket No. 18-02012 Application Of Sierra Pacific Power Company D/B/A Nv Energy Filed Under Advice Letter No. 326-G To Revise Gas Tariff No. 1 To Establish The 2017 Tax Rate Reduction Rider.

Indiana Utility Regulatory Commission, Cause No. 45029, Petition of Indianapolis Power & Light Company ("IPL") for (1) Authority to Increase Rates and Charges for Electric Utility Service, (2) Approval of Revised Depreciation Rates, Accounting Relief, Including Update of the Major Storm Damage Restoration Reserve Account, Approval of a Vegetation Management Reserve Account, Inclusion in Basic Rates and Charges of the Costs of Certain Previously Approved Projects, Including the Eagle Valley Combined Cycle Gas Turbine, the National Pollution Discharge Elimination System and Coal Combustion Residuals Compliance Projects, Rate Adjustment Mechanism Proposals, Cost Deferrals, Amortizations, and (3) Approval of New Schedules of Rates, Rules and Regulations for Service.

Oklahoma Corporation Commission Cause No. PUD 201700496: In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma

Public Utility Commission of Texas Docket No. 47527, in the matter of the Application of Southwestern Public Service for Authority to Change Rates.

The Rhode Island Public Utilities Commission Docket No. 4770: In re: The Narragansett Electric Company d/b/a National Grid Electric and Gas Distribution Rate Filing.

Connecticut Public Utilities Regulatory Authority Docket No. 17-10-46: Application of the Connecticut Light and Power Company D/B/A Eversource Energy to Amend its Rate Schedules.

2017

Indiana Utility Regulatory Commission Cause No. 44967-NONE: Petition of Indiana Michigan Power Company, an Indiana corporation, for (1) authority to increase its rates and charges for electric utility service through a phase in rate adjustment; (2) approval of: revised depreciation rates; accounting relief; inclusion in basic rates and charges of qualified pollution control property, clean energy projects and cost of bringing I&M's system to its present state of efficiency; rate adjustment mechanism proposals; cost deferrals; major storm damage restoration reserve and distribution vegetation management program reserve; and amortizations; and (3) for approval of new schedules of rates, rules and regulations.

Public Service Commission of Wisconsin Docket No. 4220-UR-123: Application of Northern States Power Company, a Wisconsin Corporation for Authority to Adjust Electric and Natural Gas Rates

Michigan Public Service Commission Case No. U-18255. In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates for its rate schedules and rules governing the generation and distribution of electricity and for other relief.

Michigan Public Service Commission Case No. U-18322. In the matter of the Application of CONSUMERS ENERGY COMPANY for authority to increase its rates for its rate schedules and rules governing the generation and distribution of electricity and for other relief.

Iowa Utilities Board Docket No. RPU-2017-0001: In re: Interstate Power and Light Company.

Public Service Commission of Kentucky Case No. 2017-00179: In the Matter of the Electronic Application of Kentucky Power Company for (1) A General Adjustment of its Rates for Electric Service; (2) An Order Approving its 2017 Environmental Compliance Plan; (3) An Order Approving its Tariffs and Riders; (4) An Order Approving Accounting Practices to Establish Regulatory Assets and Liabilities; and (5) An Order Granting all other Required Approvals and Relief.

Public Service Commission of Kentucky Case No. 2016-00370: In the Matter of the Electronic Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates and for Certificates of Public Convenience and Necessity.

Public Service Commission of Kentucky Case No. 2016-00371: In the Matter of the Electronic Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates and for Certificates of Public Convenience and Necessity.

2016

Arizona Corporation Commission Docket No. E-01345A-16-0036: In the Matter of the Application of Arizona Public Service Company for a Hearing to Determine the Fair Value of the Utility Property of the Company for Ratemaking Purposes, to Fix a Just and Reasonable Rate of Return Thereon, to Approve Rate Schedules Designed to Develop Such Return.

Public Service Commission of South Carolina Docket No. 2016-227-E: IN RE: Application of Duke Energy Progress, LLC for Authority to Adjust and Increase Its Electric Rates and Charges

Arkansas Public Service Commission Docket No. 16-027-R: In The Matter of Net Metering and The Implementation of Act 827 of 2015.

Public Utility Commission of Texas Docket No. 45524, in the matter of the Application of Southwestern Public Service for Authority to Change Rates

Public Service Commission of Wisconsin Docket No. 4220-UR-122: Application of Northern States Power Company, a Wisconsin Corporation for Authority to Adjust Electric and Natural Gas Rates

Michigan Public Service Commission Case No. U-18014. In the matter of the Application of DTE ELECTRIC COMPANY for authority to increase its rates, amend its rate schedules and rules governing the distribution and supply of electric energy, and for miscellaneous accounting authority.

Arizona Corporation Commission Docket No. E-01933A-15-0322: In the Matter of the Application of Tucson Electric Power Company For the Establishment of Just and Reasonable Rates and Charges

Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of Tucson Electric Power Company Devoted to its Operations Throughout the State of Arizona, and for Related Approvals.

2015

Arizona Corporation Commission Docket No. E-04204A-15-0142: In the Matter of the Application of UNS Electric, Inc. For the Establishment of Just and Reasonable Rates and Charges Designed to Realize a Reasonable Rate of Return on the Fair Value of the Properties of UNS Electric, Inc. Devoted to Its Operations Throughout the State of Arizona, and for Related Approvals.

2012

Arkansas Public Service Commission Docket No. 12-067-U: In the Matter of the Application of Oklahoma Gas and Electric Company for an Order Approving a Temporary Surcharge to Recover the Costs of a Renewable Wind Generation Facility

2011

Oklahoma Corporation Commission Cause No. PUD 201100087: In the Matter of the Application of Oklahoma Gas and Electric Company for an Order of the Commission Authorizing Applicant to Modify its Rates, Charges, and Tariffs for Retail Electric Service in Oklahoma

2010

Arkansas Public Service Commission Docket No. 10-067-U: In the Matter of the Application of Oklahoma Gas and Electric Company for Approval of a General Change in Rates and Tariffs

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2018-319-E

IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

EXHIBIT GWT-2 OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

Calculation of Revenue Requirement Impact of DEC's Proposed ROE Increase

(1)	Smith Exhibit 1, p. 1	DEC Requested Rate of Return on Total Company Capitalization	7.74%
		1) Calculate Rate of Return Using ROE = 10.2%	
		Capital Component	Percentage of
			Total
			Cost
			Weighted Cost
(2)	Smith Exhibit 1, p. 2	Long-Term Debt	47.00%
(3)	=10.2%	Members' Equity	53.00%
(4)	(2)+(3)	Rate of Return (ROE = 10.2%)	7.58%
		2) Calculate Revenue Requirement Impact at the Propose ROE	
(5)	Smith Exhibit 1, p. 1	Original Cost Rate Base (\$000)	\$ 5,619,978
(6)	= (4)	Rate of Return (ROE = 10.2%)	7.58%
(7)	(5) x (6)	Income Requirement (ROE = 10.2%)	\$ 426,112
(8)	Smith Exhibit 1, p. 1	DEC Proposed Income Requirement (\$000)	\$ 434,993
(9)	(8) - (7)	Difference in Income Requirement (\$000)	\$ 8,881
(10)	Smith Exhibit 1, p. 2	Retention Factor (= 172,453 / 230,807)	0.7472
(11)	(9) / (10)	Difference in Revenue Requirement (\$000)	\$ 11,886
(12)	Smith Exhibit 1, p. 2	Requested Base Rate Increase (\$000)	\$ 230,807
(13)	(11) / (13)	Percent of Increase from ROE Increase	5.1%

BEFORE THE
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IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
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EXHIBIT GWT-3 OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

Calculation of Revenue Requirement Impact of Including CWIP in Rate Base

<u>Line No.</u>	<u>Units</u>	<u>Description</u>	<u>Source</u>	<u>Amount</u>
(1)	(\$000)	Proposed CWIP Included in Rate Base	Smith, Exhibit 1, p. 4	\$ 352,722
(2)	(\$000)	Proposed Total Rate Base	Smith, Exhibit 1, p. 4	\$ 5,619,978
(3)		CWIP Percentage of Rate Base	(1) / (2)	6.28%
(4)		Proposed Rate of Return on Rate Base	Smith Exhibit 1, p. 1	7.7411%
(5)		Retention Factor (= 172,453 / 230,807)	Smith Exhibit 1, p. 2	0.7472
(6)	(\$000)	Revenue Requirement from CWIP	(1) x (4) / (5)	\$ 36,544
(7)	(\$000)	Requested Rate Increase (\$000)	Smith Exhibit 1, p. 2	\$ 230,807
(8)		Percent of Increase from CWIP	(6) / (7)	15.8%

BEFORE THE
PUBLIC SERVICE COMMISSION
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IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

EXHIBIT GWT-4 OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

Reported Authorized Returns on Equity, Electric Utility Rate Cases Completed, 2016 to Present

State	Utility	Docket	Decision Date	Vertically Integrated (V)/Distribution (D)	Return on Equity (%)
Washington	Avista Corp.	UE-150204	1/6/2016	V	9.50%
Arkansas	Entergy Arkansas Inc.	15-015-U	2/13/2016	V	9.75%
Indiana	Indianapolis Power & Light Co.	44576	3/16/2016	V	9.85%
Massachusetts	Fitchburg Gas & Electric Light	15-80	4/29/2016	D	9.80%
Maryland	Baltimore Gas and Electric Co.	9406	6/3/2016	D	9.75%
New Mexico	El Paso Electric Co.	15-00127-UT	6/8/2016	V	9.48%
New York	NY State Electric & Gas Corp.	15-E-0283	6/15/2016	D	9.00%
New York	Rochester Gas & Electric Corp.	15-E-0285	6/15/2016	D	9.00%
Indiana	Northern Indiana Public Service Co.	44688	7/18/2016	V	9.98%
Tennessee	Kingsport Power Company	16-00001	8/9/2016	V	9.85%
Arizona	UNS Electric Inc.	E-04204A-15-0142	8/18/2016	V	9.50%
New Jersey	Atlantic City Electric Co.	ER-16030252	8/24/2016	D	9.75%
Washington	PacifiCorp	UE-152253	9/1/2016	V	9.50%
Michigan	Upper Peninsula Power Co.	U-17895	9/8/2016	V	10.00%
New Mexico	Public Service Co. of NM	15-00127-UT	9/28/2016	V	9.58%
Massachusetts	Massachusetts Electric Co.	15-155	9/30/2016	D	9.90%
Wisconsin	Madison Gas and Electric Co.	3270-UR-121	11/9/2016	V	9.80%
Oklahoma	Public Service Company of OK	PUD 201500208	11/10/2016	V	9.50%
Maryland	Potomac Electric Power Co.	9418	11/15/2016	D	9.55%
Wisconsin	Wisconsin Power and Light Co	6680-UR-120	11/18/2016	V	10.00%
Florida	Florida Power & Light Co.	160021-EI	11/29/2016	V	10.55%
California	Liberty Utilities CalPeco	A15-05-008	12/1/2016	V	10.00%
Illinois	Ameren Illinois	16-0262	12/6/2016	D	8.64%
Illinois	Commonwealth Edison Co.	16-0259	12/6/2016	D	8.64%
South Carolina	Duke Energy Progress Inc.	2016-227-E	12/7/2016	V	10.10%
New Jersey	Jersey Central Power & Light Co.	ER-16040383	12/12/2016	D	9.60%
Connecticut	United Illuminating Co.	16-06-04	12/14/2016	D	9.10%
Colorado	Black Hills Colorado Electric	16AL-0326E	12/19/2016	V	9.37%
Maine	Emera Maine	2015-00360	12/19/2016	D	9.00%
North Carolina	Virginia Electric & Power Co.	E-22 Sub 532	12/22/2016	V	9.90%
Nevada	Sierra Pacific Power Co.	16-06006	12/22/2016	V	9.60%
Idaho	Avista Corp.	AVU-E-16-03	12/28/2016	V	9.50%
Wyoming	MDU Resources Group Inc.	2004-117-ER-16	1/18/2017	V	9.45%
New York	Consolidated Edison Co. of NY	16-E-0060	1/24/2017	D	9.00%
Michigan	DTE Electric Co.	U-18014	1/31/2017	V	10.10%
Maryland	Delmarva Power & Light Co.	9424	2/15/2017	D	9.60%
New Jersey	Rockland Electric Company	ER-16050428	2/22/2017	D	9.60%
Arizona	Tucson Electric Power Co.	E-01933A-15-0322	2/24/2017	V	9.75%
Michigan	Consumers Energy Co.	U-17990	2/28/2017	V	10.10%
Minnesota	Otter Tail Power Co.	E-017/GR-15-1033	3/2/2017	V	9.41%
Oklahoma	Oklahoma Gas & Electric Co.	PUD 201500273	3/20/2017	V	9.50%
Florida	Gulf Power Co.	160186-EI	4/4/2017	V	10.25%
New Hampshire	Liberty Utilities Granite St	DE-16-383	4/12/2017	D	9.40%
New Hampshire	Unitil Energy Systems Inc.	DE-16-384	4/20/2017	D	9.50%
Missouri	Kansas City Power & Light	ER-2016-0285	5/3/2017	V	9.50%
Minnesota	Northern States Power Co.	E-022/GR-15-826	5/11/2017	V	9.20%
Arkansas	Oklahoma Gas & Electric Co.	16-052-U	5/18/2017	V	9.50%
Delaware	Delmarva Power & Light Co.	16-0649	5/23/2017	D	9.70%
North Dakota	MDU Resources Group Inc.	PU-16-666	6/16/2017	V	9.65%
Kentucky	Kentucky Utilities Co.	2016-00370	6/22/2017	V	9.70%
Kentucky	Louisville Gas & Electric Co.	2016-00371	6/22/2017	V	9.70%
District of Columbia	Potomac Electric Power Co.	FC-1139	7/24/2017	D	9.50%
Arizona	Arizona Public Service Co.	E-01345A-16-0036	8/15/2017	V	10.00%

Reported Authorized Returns on Equity, Electric Utility Rate Cases Completed, 2016 to Present

State	Utility	Docket	Decision Date	Vertically Integrated (V)/Distribution (D)	Return on Equity (%)
New Jersey	Atlantic City Electric Co.	D-ER-17030308	9/22/2017	D	9.60%
Texas	Oncor Electric Delivery Co.	45957	9/28/2017	D	9.80%
Maryland	Potomac Electric Power Co.	9443	10/20/2017	D	9.50%
California	Pacific Gas & Electric Co.	Advice No. 5148-E	10/26/2017	V	10.25%
California	San Diego Gas & Electric Co.	Advice No. 3120-E	10/26/2017	V	10.20%
California	Southern California Edison Co.	Advice No. 3665-E	10/26/2017	V	10.30%
Florida	Tampa Electric Co.	20170210-EI	11/6/2017	V	10.25%
Alaska	Alaska Electric Light Power	U-16-086	11/15/2017	V	11.95%
Massachusetts	NSTAR Electric Co.	17-05	11/30/2017	D	10.00%
Massachusetts	Western Massachusetts Electric	17-05	11/30/2017	D	10.00%
Washington	Puget Sound Energy Inc.	UE-170033	12/5/2017	V	9.50%
Illinois	Ameren Illinois	17-0197	12/6/2017	D	8.40%
Illinois	Commonwealth Edison Co.	17-0196	12/6/2017	D	8.40%
Wisconsin	Northern States Power Co. - WI	D-4220-UR-123	12/7/2017	V	9.80%
Texas	El Paso Electric Co.	46831	12/14/2017	V	9.65%
Texas	Southwestern Electric Power Co.	46449	12/14/2017	V	9.60%
Oregon	Portland General Electric Co.	UE 319	12/18/2017	V	9.50%
New Mexico	Public Service Co. of NM	16-00276-UT	12/20/2017	V	9.58%
Idaho	Avista Corp.	AVU-E-17-01	12/28/2017	V	9.50%
Nevada	Nevada Power Co.	17-06003	12/29/2017	V	9.40%
Vermont	Green Mountain Power Corp	17-3112-INV	12/21/2017	V	9.10%
Kentucky	Kentucky Power Co.	C-2017-00179	1/18/2018	V	9.70%
Oklahoma	Public Service Co. of OK	Ca-PUD201700151	1/31/2018	V	9.30%
Iowa	Interstate Power & Light Co.	D-RPU-2017-0001	2/2/2018	V	9.98%
North Carolina	Duke Energy Progress Inc.	D-E-2, Sub 1142	2/23/2018	V	9.90%
Minnesota	ALLETE (Minnesota Power)	D-E-015/GR-16-664	3/12/2018	V	9.25%
New York	Niagara Mohawk Power Corp.	C-17-E-0238	3/15/2018	D	9.00%
Michigan	Consumers Energy Co.	C-U-18322	3/29/2018	V	10.00%
Connecticut	Connecticut Light and Power	D-17-10-46	4/18/2018	D	9.25%
Michigan	DTE Electric Co.	C-U-18255	4/18/2018	V	10.00%
Washington	Avista Corp.	D-UE-170485	4/26/2018	V	9.50%
Indiana	Indiana Michigan Power Co.	Ca-44967	5/30/2018	V	9.95%
Maryland	Potomac Electric Power Co.	C-9472	5/31/2018	D	9.50%
New York	Central Hudson Gas & Electric	C-17-E-0459	6/14/2018	D	8.80%
North Carolina	Duke Energy Carolinas LLC	D-E-7, Sub 1146	6/22/2018	V	9.90%
Maine	Emera Maine	D-2017-00198	6/28/2018	D	9.35%
Hawaii	Hawaii Electric Light Co	D-2015-0170	6/29/2018	V	9.50%
District of Columbia	Potomac Electric Power Co.	FC-1150	8/8/2018	D	9.53%
Delaware	Delmarva Power & Light Co.	D-17-0977	8/21/2018	D	9.70%
Rhode Island	Narragansett Electric Co.	D-4770 (electric)	8/24/2018	D	9.28%
New Mexico	Southwestern Public Service Co	C-17-00255-UT	9/5/2018	V	9.10%
Wisconsin	Wisconsin Power and Light Co	D-6680-UR-121 (Elec)	9/14/2018	V	10.00%
Wisconsin	Madison Gas and Electric Co.	D-3270-UR-122 (Elec)	9/20/2018	V	9.80%
North Dakota	Otter Tail Power Co.	C-PU-17-398	9/26/2018	V	9.77%
Ohio	Dayton Power and Light Co.	C-15-1830-EL-AIR	9/26/2018	D	9.999% *
Kansas	Westar Energy Inc.	D-18-WSEE-328-RTS	9/27/2018	V	9.30%
Pennsylvania	UGI Utilities Inc.	D-R-2017-2640058	10/4/2018	D	9.85%
New Jersey	Public Service Electric Gas	D-ER18010029	10/29/2018	D	9.60%
Indiana	Indianapolis Power & Light Co.	Ca-45029	10/31/2018	V	9.99%
Illinois	Ameren Illinois	D-18-0807	11/1/2018	D	8.69%
Illinois	Commonwealth Edison Co.	D-18-0808	12/4/2018	D	8.69%

Reported Authorized Returns on Equity, Electric Utility Rate Cases Completed, 2016 to Present

State	Utility	Docket	Decision Date	Vertically Integrated (V)/Distribution (D)	Return on Equity (%)
Kansas	Kansas City Power & Light	D-18-KCPE-480-RTS	12/13/2018	V	9.30%
Oregon	Portland General Electric Co.	D-UE-335	12/14/2018	V	9.50%
Ohio	Duke Energy Ohio Inc.	C-17-0032-EL-AIR	12/19/2018	D	9.84%
Texas	Texas-New Mexico Power Co.	D-48401	12/20/2018	D	9.65%
Wisconsin	Madison Gas and Electric Co.	D-3270-UR-122 (Elec)	12/20/2018	V	9.80%
Vermont	Green Mountain Power Corp.	C-18-0974-TF	12/21/2018	D	9.30%
Michigan	Consumers Energy Co.	C-U-20134	1/9/2019	V	10.00%
Entire Period					
# of Decisions		111			
Average (All Utilities)					9.61%
Average (Distribution Only)					9.38%
Average (Vertically Integrated Only)					9.76%
Median					9.60%
Minimum					8.40%
Maximum					11.95%
2016					
# of Decisions		32			
Average (All Utilities)					9.60%
Average (Distribution Only)					9.31%
Average (Distribution Only, exc. IL FRP)					9.45%
Average (Vertically Integrated Only)					9.77%
2017					
# of Decisions		42			
Average (All Utilities)					9.68%
Average (Distribution Only)					9.43%
Average (Distribution Only, exc. IL FRP)					9.61%
Average (Vertically Integrated Only)					9.80%
2018 & 2019					
# of Decisions		37			
Average (All Utilities)					9.56%
Average (Distribution Only)					9.38%
Average (Distribution Only, exc. IL FRP)					9.47%
Average (Vertically Integrated Only)					9.69%

Source: SNL Financial LC, January 3, 2019

* Due to Rounding, the ROE Award is reported as 10.00 on the SNL Website.

BEFORE THE
PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NO. 2018-319-E

IN RE: Application of Duke Energy)
Carolinas, LLC for Adjustments in Electric)
Rate Schedules and Tariffs and Request for an)
Accounting Order)

EXHIBIT GWT-5 OF
GREGORY W. TILLMAN
ON BEHALF OF WALMART INC.

Calculation of Revenue Requirement Impact of DEC's Proposed ROE vs. National Average

(1)	Smith Exhibit 1, p. 1	DEC Requested Rate of Return on Total Company Capitalization	7.74%
		1) Calculate Rate of Return Using ROE = 9.69%	
		Capital Component	Percentage of
			Total
			Cost
			Weighted Cost
(2)	Smith Exhibit 1, p. 2	Long-Term Debt	47.00%
(3)	=9.69%	Members' Equity	53.00%
(4)	(2)+(3)	Rate of Return (ROE = 9.69%)	7.3118%
		2) Calculate Revenue Requirement Impact at the Propose ROE	
(5)	Smith Exhibit 1, p. 1	Original Cost Rate Base (\$000)	\$ 5,619,978
(6)	= (4)	Rate of Return (ROE = 9.69%)	7.31%
(7)	(5) x (6)	Income Requirement (ROE = 9.69%)	\$ 410,922
(8)	Smith Exhibit 1, p. 1	DEC Proposed Income Requirement (\$000)	\$ 434,993
(9)	(8) - (7)	Difference in Income Requirement (\$000)	\$ 24,071
(10)	Smith Exhibit 1, p. 2	Retention Factor (= 172,453 / 230,807)	0.7472
(11)	(9) / (10)	Difference in Revenue Requirement (\$000)	\$ 32,217
(12)	Smith Exhibit 1, p. 2	Requested Rate Increase (\$000)	\$ 230,807
(13)	(11) / (13)	Percent of Increase in ROE Difference	14.0%